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I.—*A Short Trip to Kashmir.*

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FOR many years I had been planning a birds'-nesting trip to Kashmir, but difficulties as to leave and other matters always came in the way, and it was not till the close of my Indian service, in March 1896, that I found myself at liberty and able to undertake the trip.

I was fortunate enough to persuade Mr. Bell, of the Forest Department, to take three months' leave and accompany me. Although he had for many years been a devoted collector of Lepidoptera and Coleoptera, he had previously not taken any special interest in birds or their eggs; he, however, became even more enthusiastic, if possible, than myself, and the energy and activity which a very considerable advantage in years gave him made him not only most valuable as an assistant, but deserving of certainly at least an equal share of the considerable success we had on our expedition. As his time was strictly limited to three months, and as the long journey to Kashmir from North Kanara and back was bound to take up a large portion of our time, it was necessary to select our date of starting so as to bring us on to the best ground during the cream of the collecting-season. It was therefore, after a careful perusal of all the authorities to

which we had access, decided that we should leave Bombay on the evening of the 13th April. This season seemed the best, according to the results of the trip of the late Major Cocks and Mr. Brooks in 1872, and the notes on birds in Mr. Lawrence's recent work on Kashmir; unfortunately, however, we had not taken into account the fact that the seasons in the Himalayas vary from year to year, and that 1896 was remarkable for a heavy snowfall, with the consequence that flowers, fruits, and birds were nearly a fortnight later than usual. We therefore, on our arrival, found that for the first fortnight hardly any birds had commenced to build, and we had to leave Sonamurg (the furthest point we reached) at a time that we were taking forty or fifty eggs a day, and when several of the most interesting birds were only building their nests. This was a great disappointment, but notwithstanding we were very successful; and as I can find no previous records about some of the birds found breeding, I think it worth while to give a short account of our trip.

Leaving Bombay on the night of the 13th April, we reached Lahore on the morning of the 16th, and spent the day there visiting the Zoological Gardens, which were principally interesting from the number of wildfowl on the sheet of water in the centre. In the station we saw nothing noteworthy except that *Palæornis magnirostris*, which I had only previously seen as a wary inhabitant of the Satpura Hills, was in pairs, and flying about as devoid of fear of man as the familiar *P. torquatus*.

We left Lahore in the evening, reached Rawal Pindi at noon next day, and left again before daybreak on the 18th, reaching Murree in time for a late breakfast. We found Murree intensely cold during the three days we spent there, while our servants and tents were being carried by "ekka" along the Jhelum. Birds were numerous, though the only ones we saw breeding were *Stoparola melanops* and *Ægithaliscus erythrocephalus*. The former were busily employed in making nests in holes under the culverts along the roads on the hill, and we saw a pair of the latter carrying feathers in their mouths. We were, however,

surprised to see butterflies, and we spent our time most happily in capturing many that we had not previously seen alive.

We left Murree in a tonga on the morning of the 22nd, and crossed the Kohala bridge over the Jhelum about mid-day, reaching Garhi in time for dinner, and next day we drove along the Jhelum, reaching Baramula about 4 p.m. We found our boats and servants waiting for us, and went a mile or two up the river to escape the numerous merchants beseeching orders for everything from Kashmir silver-ware and shawls to leather shoes.

Between Murree and Baramula we saw a good many birds, and made our first acquaintance with several charming songsters, such as *Chimarrhornis leucocephalus* and *Rhyacornis fuliginosus*. We saw also *Palaornis schisticeps*, with its beautiful yellow tail, in flocks, and occasional pairs all along the Jhelum till about seven or eight miles from Baramula, when it disappeared, and we never saw it on the other side of the Pir Punjal range. The European Cuckoo was heard everywhere along the road, and indeed every day till we left Kashmir.

On the 24th and 25th April we were towed up the Jhelum between Baramula and Srinugger, we ourselves walking along the banks most of the way, carrying butterfly-nets and guns. We saw, however, very few birds. Starlings and Jackdaws (*Sturnus humii* and *Corvus monedula*) were in large flocks, and occasionally we saw a pair building. *Upupa epops* and the common Kashmir Thrush (*Merula unicolor*) were in pairs everywhere, while the banks were full of House-Sparrows building in slight holes in the ground. On the way we saw a small flock of *Merula atrigularis*, one of which I missed; they were evidently passing through, and our general impression of this district was that it was very birdless. There were a good many Kites along the river; we shot one, a fine male of *Milvus melanotis*, and took two nests of this bird with one and two fresh eggs respectively. Most, if not all, the Kites along the river seemed to be of this species, while higher up the Sind River the few Kites

we saw appeared to be very small, and wanted the large conspicuous white patch on the underwing. We, however, never got a chance of shooting a Kite in the Sind Valley.

There were a pair of *Haliaëtus leucoryphus* every two or three miles along the river, and Mr. Bell saved one of these from an untimely end. The bird had in some way got a leg caught between two crooked branches in the extreme top of a mulberry-tree, and must have been there a long time, as it was hanging downwards, apparently dead, and looking in the distance like a piece of cloth. When we got close, however, it made a feeble attempt to flap, and Mr. Bell insisted on risking his neck in climbing up, when he managed with difficulty to release it; it then slowly flew away, and alighted on a tree a hundred yards off. It is difficult to see how it could have got caught between the branches.

We reached Srinugger on the night of the 25th, and stayed there till the 30th, making arrangements for our trip. We saw few birds at Srinugger except those of species observed on the road up the Jhelum. On the Tukht-i-Suliman a few birds were commencing to build, and on the 29th we found there several nests of *Sylvia affinis* and *Emberiza stewarti* just finished, and one nest of the former with four fresh eggs. We also found a nest of the Himalayan Goldfinch (*Carduelis caniceps*) nearly finished; this we left in charge of one of the boatmen, with orders to send it on with its contents ten days later.

On the 30th of April we went to Gandarbal, at the mouth of the Sind River, where we stayed till the morning of the 2nd May, but found there only the birds we had previously met with on the Tukht-i-Suliman. Several of the *Sylvia affinis*, however, had eggs, as also had some Jackdaws. We left on the 2nd, and made four marches to Sonamurg, seeing some interesting birds by the way, and also large flocks of migrating Pipits passing up the Sind-River Valley. The only kind we were able to identify was *Anthus rosaceus*.

Sonamurg itself we found almost covered with snow, and though we saw a couple of nests of *Myiophonus temmincki*

finished, the inducements to stay were very small, and we marched back again on the 8th. Returning, in the Sind gorge we found a nest of *Cinclus asiaticus* in process of formation, and were interested in watching from across the stream the bird collect a quantity of moss and then dive through the water to the bank on which it was evidently building. Poor deluded bird! it had chosen a position for its nest which would have been two feet under water when the melting of the snows caused the river to rise. This species, however, generally seemed to succeed in rearing its young, and does not suffer so terribly as the Wagtails (*Motacilla hodysoni* and *M. melanope*), which habitually breed under stones on the islands, and the nests of which were frequently washed away, often before the full clutches, for which we were waiting, were laid.

We camped at Gund on the 9th of May, and remained there till the 31st, finding one or two nests daily till the 20th, by which time nidification was in full swing, and we used to take many clutches of eggs every day. Gund, which is at an elevation of about 6500 feet, is a narrow plateau bounded by high hills, some of which are well over 12,000 feet. On the right bank (ascending) these are well wooded almost to the very tops, while on the left bank, except in a few places, the hills are bare and grassy; the lowest 300 feet or so being covered by a quantity of a shrub with bright purplish-red flowers, among which *Emberiza stracheyi*, *Pratincola maura*, *Sylvia affinis*, *Horornis pallidus*, and other birds breed in abundance. Our principal hunting-ground, however, was on the wooded side, and there we had very fair success. But we found so many of the birds we specially hoped to obtain either absent or rare that on the 31st we started for Gangadgir, and again reached Sonamurg on the 1st June. We stayed there till the 17th June, and then left, most reluctantly, as our time was drawing to a close.

Sonamurg, which has been often described, is a broad plateau of some two miles square, containing a few low hills, which are sparingly wooded; it is surrounded by lofty hills,

snow-capped on the right bank of the river, but bare on the other side. Its elevation is 8600 feet, and the hills around must be at least 3000 feet higher. On the 1st June we found birds, as a rule, only completing their nests; but towards the close of our stay we obtained ten or fifteen nests daily, mainly on the very steep wooded hills to the right of the river. Oddly enough, we did not find anything of the least value on the right bank of the tributary joining the Sind River on its right bank, though the forest seemed very tempting.

Leaving Sonamurg on the 17th of June, we marched back to Gandarbal, giving up a day (the 19th) to visit our old haunts at Gund. We found there, however, that the nesting season was over, and that birds had young, in most cases already flying.

We reached the foot of the Sind River at Gandarbal on the 20th, and had a day on the marshes, which we found were full of birds breeding. We then spent a couple of days at Srinugger, one devoted to the Tukht-i-Suliman, and the other to the Dal Lake. The former was not a success, but the morning we spent on the Dal Lake produced some 200 eggs, though we did not molest the common species, such as *Gallinula chloropus* and *Podiceps minor*. We then returned the way we had come, reaching Bombay on the 6th July.

In a trip of this description, extending over such a short period, of course very many birds must have been overlooked, and the notes as to the birds we observed must be very sparse; still during our trip we worked hard, leaving our tents generally soon after 6 in the morning, and working till 12 or 1, when we returned to breakfast. Between then and 4 we were generally fully employed blowing eggs (for we blew the rarest ourselves, not trusting them to my skinner), putting insects in papers, and making notes. After 4 we used to spend the time till dark in collecting. On such days as we had not enough to keep us employed at home from 1 to 4 we used to go for a stroll near the tents. We thus managed to get a good many hours' hard work every day, and noticed the following birds,

all of which we found in Kashmir territory, this list not including species seen at Murree before we crossed the frontier. The names used in this list are mostly those of 'The Fauna of British India,' by Oates and Blanford.

1. *CORVUS MACRORHYNCHUS* Wagl.

This Crow was common all along the Sind Valley as far as Sonamurg, and also in the Jhelum Valley between Kohala and Baramula. In the Valley of Kashmir proper, with the exception of a pair on the Tukht-i-Suliman in Srinugger, we did not meet with it. We took fresh eggs from the beginning of May in various places in the Sind Valley.

2. *CORVUS SPLENDENS* Vieill.

This species we noticed abundantly about Srinugger and along the Jhelum between that place and Baramula, but we never saw the bird anywhere in the Sind Valley. The Kashmir birds are almost white, so much so that we did not recognize the species on first meeting with it. Their young were flying in the neighbourhood of Srinugger in the end of June.

3. *CORVUS MONEDULA* Linn.

Noticed first at Uri in the Jhelum Valley on April 23rd, where Jackdaws were building in the fort, and from there in numbers in every village between Baramula and Srinugger. We found them in abundance in the Sind Valley as far as Gund in the beginning of May, and later on they appeared in considerable numbers at Gangadgir (7000 feet), at the foot of the gorge leading up to Sonamurg. We, however, never met with any at Sonamurg, and they do not seem to enter the gorge at all. We saw some nests in holes in buildings in Srinugger, and in holes in banks along the Jhelum, but the vast majority were in holes in trees, especially of chunar-trees; many being several feet from the mouth of the holes. The eggs were laid in the first three weeks of May, and varied much, as they do in Europe. We saw a single pair of birds building on the 21st June at Gandarbal, where there were many young flying, so it is likely that some at least breed twice in the year.

4. *UROCISSA FLAVIROSTRIS* (Blyth).

This Magpie we found only twice in Kashmir: once on May 3rd near Kagan, the second stage in the Sind Valley, where we saw three together; and again I saw and shot a single specimen at Kulan, eighteen miles further up the river, on the 9th.

5. *NUCIFRAGA MULTIPUNCTATA* Gould.

We found this species in pairs in the neighbourhood of Gund during the month of May. The birds were very tame and noisy, mobbing Owls, and walking on the ground quite close to us. We saw no signs of their breeding; a specimen shot on the 4th May was also not breeding. On the 31st May we saw five or six together at the foot of the gorge on the Sind River. We did not notice any at Sonamurg, nor at Gund on our return in June. They possibly had gone somewhere further north to breed; but as the bird is considered a very early breeder we had fully expected to find their nests, and frequently watched them for long periods.

6. *GRACULUS EREMITA* (Linn.).

There were large flocks of this and the succeeding species at Sonamurg on May 7th, feeding on the plateau and the sides of the bare hills; but, with the exception of a single pair, all had left by the 1st of June, when we returned to Sonamurg. This pair we saw daily; they seemed to come from some cliffs above the wooded hill below the village; the place, however, was quite inaccessible.

7. *PYRRHOCORAX ALPINUS* (Linn.).

This bird was certainly the commoner of the two species of Choughs on May 7th, but was much more shy. We never came upon it again. Both species were found in the same flock.

8. *PARUS ATRICEPS* Horsf.

This Tit was common at Srinugger, and also along the Sind Valley from Kagan to Gangadgir (7000 feet), but we did not see it at Sonamurg, or at an altitude of above 7000 feet. We obtained numerous nests between the 19th

and 31st May in holes, at various heights in trees, both dead and growing; the eggs being generally from five to seven in number, and deposited in the usual beds of hair and moss.

9. PARUS MONTICOLA Vig.

This Tit was decidedly rare, and noticed by us only on a few occasions in the neighbourhood of Gund, and then only in the denser forests. The only nest we obtained was very deep down in a hole in a small tree some dozen feet from the ground, and on the 29th May, when we found it, it contained six well-grown young.

10. LOPHOPHANES MELANOLOPHUS (Vig.).

This was the common Tit at all elevations above 7000 feet. It was in flocks at Sonamurg on the 5th May, but paired immediately afterwards, as we saw a pair building on the 8th. We took several nests between the 24th May and the 16th June; that taken on the 24th May containing seven eggs just being hatched, while one of those taken on the 16th June contained six fresh eggs. The nests were at various heights, but most did not exceed four or five feet; we found one, however, over forty feet from the ground. All were in holes in trees, but generally so near the entrance that it was easy to get at the nests by merely breaking away the rotten wood round the hole with a knife. They consisted of a little moss, lined with a thick patch of hair. The number of eggs was in all cases five, six, or seven. The eggs are large for the size of the bird and very thickly spotted; they vary considerably in size, in one clutch being nearly as large as those of *Parus atriceps*.

11. TROCHALOPTERUM LINEATUM (Vig.).

This Babbler was very common all along the Jhelum Valley from Kohala to Baramula, and in the neighbourhood of Gund in the Sind Valley. We did not see it anywhere above 7000 feet. We found many of its nests, containing three or four eggs, either in the scrub at the foot of the hills or in the lower branches of fir-trees in the forest close to the base of the hills.

12. MYIOPHONEUS TEMMINCKI Vig.

This bird was common along the Jhelum Valley from Kohala (2500 feet) to Baramula (5000 feet). We did not notice it in the Valley of Kashmir proper, but there the country was not suited to it; it was very common from Kagan to Sonamurg, along the Sind River and its tributaries. We found many of its nests, placed from a foot above the level of the river, in low rocky banks, to the sides of precipitous cliffs quite inaccessible to the climber. Although the number of nests found was very large, the proportion of those with eggs or young was very small, and the birds apparently build and desert a number of nests without laying in them. In many cases we found two new nests within a yard or two of each other, but in no case did we find more than one nest occupied, and in many cases both were deserted. The number of eggs or young was either three or four.

13. LARVIVORA BRUNNEA Hodgs.

This is a rather late migrant, which we did not notice till the 11th May, when we saw a pair at Gund. Next day we saw a small flock of half a dozen males, and after that they became quite common. We found them equally so at Sonamurg. They have a pleasant song, and the males are very bold, singing loudly in almost every piece of thick jungle; the females, on the other hand, were very shy, and except occasionally for a glimpse of a brown bird, which was either this or *Ianthia rufilata*, we hardly saw any. On the 11th June, at Sonamurg, my companion started a bird from a nest with three eggs; it was built on the ground, against one of three fallen pines lying together; he waited an hour or so, but the bird did not return. Next morning he found the bird on the nest, which then contained four eggs; but though he devoted a couple of hours to watching the nest, he did not manage to get a shot. Next day we tried to drive the bird, but she rose wild, and disappeared at once in the thick undergrowth. I then sat over the nest, and in half an hour she returned and perched on a bare stump

some sixty yards off. Through the glass I could be quite certain as to the bird, but I wanted the specimen, and waited; she dropped into the undergrowth and disappeared, so after half an hour I went to the nest, when she fluttered off at my feet, disappearing in the bushes before she had gone ten yards. I then sat near the tree she had formerly lit upon, but she never showed, and on my again approaching the nest she rose wild, and again at once disappeared. I then went back to my original place, and in a few minutes she hopped on to the stump to which she had originally gone, and I secured her with a fortunate long shot. The nest was on almost bare ground between the fallen tree and a bare branch, and was a very large and loose mass of dead and decayed leaves, lined with a very few horse-hairs. On the 14th we found another nest of a similar description with four eggs, pretty hard set. It was in a hole in the ground in thick forest. In both cases the eggs were of a pale spotless blue. All previous records as to this bird to which we have access describe the nest as built in a hole in a tree, and the eggs as brownish or greenish mottled with red; and as there is no possibility of a mistake having occurred in our case, we think it probable that previous observers must have been mistaken and assumed that a *Larvivora* found in the neighbourhood of a nest of some *Cyornis* or other Robin was its owner.

14. HODGSONIUS PHÆNICUROIDES (Hodgs.).

We did not notice this bird till we reached Sonamurg in June; but there we found it not uncommon over a limited area along the edge of the forest on the right bank of the river. We never saw it more than a hundred yards from the verge of the forest, and it did not seem ever to enter the high forest, keeping among the bushes along its border. On returning we noticed one or two pairs between Gangadgir and Kulan in a similar situation. The male has the habits of a Robin, hopping about with its tail over its back, and is very pugnacious to other birds trespassing in its vicinity. Both sexes, however, were partial to thick cover, and, except

in the neighbourhood of the nest, were very shy. When, however, the nest was approached anywhere within a hundred yards or so, the female appeared, sometimes accompanied by the male, and both kept in the vicinity of the searcher; and when the nest itself was discovered there could be no doubt as to the owner, as the female invariably appeared and kept moving about in the bushes within half a dozen yards, uttering a loud chattering cry.

We found nine or ten nests, all similar, and placed in low bushes, generally about one or one and a half feet from the ground, and not in the least concealed. They were thick, deep cups, made of rough grass; one measured six inches in diameter outside, and two and three quarter inches inside, while the depth inside was four and a half inches. Internally they were lined with a few dead leaves, some fine grass, grass-roots, and a few feathers, and were most untidy structures. In all cases in which a full clutch had been laid the number of eggs was three; these were of a deep dark blue and unmarked, and varied somewhat in size. In one case we found two eggs of the usual type, and a pale blue egg considerably larger; this was no doubt an egg of *Cuculus canorus*, one of which kept constantly in the neighbourhood, frequently lighting on the tops of the little patch of bushes in which this nest was. There were two other nests of *Hodgsonius* in the same place, *i. e.* within a couple of hundred yards, one just finished and one containing a single egg; but unfortunately we had to leave next day, and so could not find out whether, as I think is likely, the Cuckoo laid eggs of a similar blue colour also in these nests. In the published description of the male of *Hodgsonius* by Oates no mention is made of the white feathers on the tip of the wing; these are very noticeable when the bird is alive, but in dried skins are pretty well concealed by the other feathers.

15. *ZOSTEROPS PALPEBROSA* (Temm.).

Only noticed once in Kashmir, at Garhi, in the Jhelum Valley.

16. *CEPHALOPYRUS FLAMMICEPS* (Burton).

This lovely little bird we found moderately common at

Sonamurg and at Gund, generally keeping pretty high on the hills, above 7000 feet. It is shy, and usually seen flitting about the tops of the trees and difficult to trace to its nest. We were very unlucky in getting its nests. Of four which we found, the first, discovered on the 12th May, was empty; another, discovered on the 23rd, contained three young ones, just hatched, and a rotten egg; a third, seen at Sonamurg on the 10th June, had three large young ones, while a fourth nest, apparently containing young, was quite unapproachable. All the nests were in holes in rotten boughs or thin dead trees, from twenty to forty feet from the ground. There was little in the way of a nest. The rotten egg and the fragments of the shells were of a uniform pale blue devoid of markings, much of the same shade of blue as those of *Zosterops palpebrosa*.

17. *HYPSIPETES PSAROIDES* Vig.

This Bulbul was common along the Jhelum Valley from near Kohala to Murree, and again up the Sind Valley, from the neighbourhood of Kagan to Gangadgir. It does not seem to come higher up the river, nor did we find it in any case high up the hills. We took two nests at Kagan on the 20th and 21st June with three fresh eggs and three young respectively. They were ordinary Bulbuls' nests, about fifteen feet up small trees.

18. *MOLPASTES LEUCOGENYS* (Gray).

This is a very common and familiar bird along the Jhelum Valley and in the Valley of Kashmir. It was common in the Sind Valley at Gandarbal; a few pairs were noticed near the river at Kagan, and a pair was seen on one occasion at Gund. We got nests in small bushes at Gandarbal in the third week of June.

19. *SITTA LEUCOPSIS* Gould.

This was the only Nuthatch noticed in Kashmir. It was common at Sonamurg, and less so on the higher hills above Gund, but did not seem there to come within a thousand feet of the river. It has a wailing cry, more like that of a mammal than of a bird, and this cry it was incessantly

uttering. We saw several nests between May 24th and June 12th: all were in holes in the trunks of dead trees, at heights generally of from twenty to forty feet from the ground, but only two of the trees were climbable. Both nests contained four fresh eggs of a pinky white, with numerous red spots.

20. *DICRURUS LONGICAUDATUS* A. Hay.

Seen sparingly in the Jhelum Valley, the Valley proper of Kashmir, and in the Sind Valley as far up the river as Kagan.

21. *CERTHIA HIMALAYANA* Vig.

This was the only Creeper we thoroughly identified in Kashmir, though on several occasions we saw what we believed was *Certhia hodysoni*. But whenever we were able to shoot the bird, it proved to be of this species. We found many nests at Sonamurg, and one on the hills above Gund, in the last week of May and first fortnight in June. All, except one which was in a crevice in a tree, were placed between the bark and the trunk of dead pines; they were composed of decayed wood as a foundation, lined with a little grass, and either wool or feathers. They were at heights of from 10 to 50 feet from the ground, and contained either four or five eggs, some clutches being much more highly coloured than others.

22. *ANORTHURA NEGLECTA* (Brooks).

This bird we saw only at Sonamurg, where it was very common, and in its habits it much resembles its English congener. We found many nests in the first fortnight of June. These varied much. Some were placed in the roots of fallen pines, and were large structures of moss, lined with feathers, and with the entrance on one side. Others were in holes in banks or dead trees, and consisted merely of a few feathers separating the eggs from the rotten wood. None were over five or six feet from the ground. Most of the eggs were white spotted with pale red, but others were white or spotted with pale grey. In two cases we found both white and spotted eggs in the same nest.

23. *ACROCEPHALUS STENTOREUS* (Hempr. & Ehr.).

This very noisy bird swarmed along the reeds in the Dal and other lakes between Gandarbal and Srinugger. On the evening of the 21st and the mornings of the 22nd and 24th June we searched for nests and found at least fifty; of these about half contained eggs, while in other cases there were young or nests merely being built. They were deep and cup-shaped, and attached to reeds growing in water two or three feet deep. The nests generally contained three eggs, but we found clutches of four and five eggs, and in one case six small young ones in a nest; the nests being generally about a foot above the water.

24. *ACROCEPHALUS AGRICOLA* (Jerd.).

We found this Warbler only in one marsh near Gandarbal, but there, on the 22nd June, it was very common; the birds flying about in pairs, and singing while on the wing. They were evidently only beginning to build, as fully half the nests we found did not as yet contain eggs. We, however, in three or four hours' wading, obtained seven nests with eggs; these were solid cups, built in various water-plants (in one case *equisetum*), and from one to three feet above the surface of the water; they were composed of rough grass with outwardly some reed-fibre and catkins intermixed, and invariably lined with fine grass, and in two cases one or two feathers. The eggs are miniatures of those of *A. stentoreus*, but not quite so elongated; they are in general boldly marked; in four cases we found clutches of four, and in no other case was this number exceeded.

25. *TRIBURA MAJOR* (Brooks).

This bird we met with only at Sonamurg, where it was very abundant among the long grass and weeds fringing the forests. It never seemed to enter these more than a very short distance, nor did we find it any distance in the open from the verge of the forests. It is a very shy bird, skulking in the grass, and unwilling to rise unless almost trod upon, when it would fly a few yards and again drop into the grass. We did not see it till the 8th June, when in the evening we

heard its perpetual *tic-tic-tic* in the dusk. By the 10th it was very common and calling all day. On the 16th, our last day at Sonamurg, we found four nests just finished, but none containing eggs; these were placed on the ground in thick herbage. These nests we carefully marked, and placed in charge of the village policeman with orders to take them on the 26th. He did so, and reported that one had been destroyed, but sent the others, containing 4, 4, and 3 eggs. These are broad ovals, large for the size of the bird, of a deep pink, mottled all over with round even-sized spots of a deeper colour.

26. *SYLVIA AFFINIS* (Blyth).

This bird we found in great abundance on the bare hills around Srinugger in the end of April, and among the scrub-jungles along the Sind River, as far as Kulan (6800 feet), four or five miles further up than Gund. It was breeding from the end of April to the end of May in low scrub, generally along the nullahs. The nests were neat cups of grass and roots, lined with horse-hair, and generally contained four eggs of the usual Whitethroat type.

On our return to Srinugger in the end of June the hills had got very much burnt up, and we were surprised to find the bird again breeding; but, instead of being among the scrub, the nests were on the outer branches of pine-trees, fifteen and twenty feet from the ground. We found four or five nests in this situation on the Tukht-i-Suliman, all with fresh eggs, and the birds seemed at that time to be restricted to the small scattered pine-wood.

27. *PHYLLOSCOPUS TYTLERI* Brooks.

This bird we found fairly common at Sonamurg along the foot of the hills—*i. e.* just under 9000 feet, but we did not notice it at any lower elevation. We took two nests on the 9th and 11th June; both were in forks of small pollarded trees some twelve or fifteen feet from the ground, and were neat and globular, with the entrance at the side. They were composed of feathers, grass, birch-bark, and hair, the last either horse or mouse. The eggs are pure white, and were four in one nest and five in the other.

28. *PHYLLOSCOPUS TRISTIS* Blyth.

This bird we met with only on migration. This was on the 29th April, while passing through a lake near Gandarbal. There were small flocks of Warblers among the bushes in the lake, and the only bird we shot proved to be of this species.

29. *PHYLLOSCOPUS PROREGULUS* (Pall.).

We shot our first specimen at Gangadgir on the 8th March, and noticed it later at Gund, high up on the hills, and also at Sonamurg. Nests, which we believe to have been of this bird, were found, one on a fir-tree, about thirty feet from the ground, and near the extremity of the branch, and two others on young firs seven or eight feet from the ground. We had to leave the former nest before the eggs were laid, and both the others were torn down by someone or something.

30. *PHYLLOSCOPUS HUMII* (Brooks).

This bird was not noticed by us except at Sonamurg, where it was excessively common in the forests, from the foot to the top of the hills. Its habits have been fully commented on by Mr. Brooks, and we found no difficulty in taking over a dozen of its nests; these were all on the ground on some bank devoid of thick undergrowth. The eggs vary considerably both in size and markings, but are always pinky-white, more or less mottled with dark pink.

31. *ACANTHOPNEUSTE MAGNIROSTRIS* (Blyth).

We first came across this bird on the 1st of June in the gorge of the Sind River, between Gangadgir and Sonamurg, where we were struck by hearing a pretty, clear song of four notes, new to us; and on shooting the songster, to our surprise, instead of, as we had anticipated, proving a Robin, it turned out to be this bird. At Sonamurg we saw and heard it once or twice, in all cases close to nullahs or in the immediate neighbourhood of water. On the 17th June, when returning through the gorge, we found the bird very common among the rocky and tangled jungle on the side of the river, and we heard some pairs singing at Gund on the steep banks of the river, and also in the jungle immediately

adjoining the large nullah which enters the Sind River at that place. We devoted several hours to looking for nests, and examined every place we thought possible—hole, tree, bank, and rock,—but without the slightest success, though the birds, or rather one of the pair, came constantly singing around. It is possible that, as this was a late arrival, the species may not have bred by the time we left. We never saw or heard the bird anywhere but in the immediate vicinity of water.

32. *ACANTHOPNEUSTE OCCIPITALIS* (Jerd.).

A very common bird everywhere in the Sind Valley where there was any forest, and one whose harsh note makes its existence very apparent whenever it occurs. We found many nests in May and June, and certainly did not perceive any shyness on the part of any of the numerous pairs we discovered breeding. The nests were found in all sorts of places, often in holes of trees, both dead and growing, up to, in one case, a height of 20 feet from the ground; in holes also in rocks, banks, and even in the ground and under stones. They were small cups of green moss, and the number of eggs varied from four to six; they were in all cases pure white. We found the egg of *Cuculus poliocephalus* in the nests of this bird and of *Phylloscopus humii*.

33. *HORORNIS PALLIDUS* (Brooks).

This bird appeared in Gund early in May, and we found it along the bare side of the river up to 7000 feet among the scrub, and also a short distance up the wooded hills. It has a wonderfully clear cry of four or five notes, which, once heard, cannot be mistaken, and this we also heard occasionally in the Jhelum Valley down to 3000 feet, and also at Murree. It is rather a late breeder, as we did not get a nest with eggs till the 27th May. Between that date and the 31st we got several more. The nests were untidy and spherical, of coarse grass, resembling those of a *Munia*, but with an entrance near the top, and lined with feathers. They were placed in thick bushes, generally about two feet from the ground. The eggs in every case were four in number, and were of a uniform purplish-red colour and extremely fragile.

34. *LANIUS ERYTHRONOTUS* (Vig.).

Very common wherever we went in Kashmir up to 6000 feet. It bred in May and June.

35. *PERICROCOTUS BREVIROSTRIS* (Vig.).

A fairly common bird, noticed everywhere in Kashmir where there was any tree-forest, and evidently partially migratory, as several small flocks passed up the Sind Valley, through Gund, in the beginning of May, at a time when the local birds were building their nests. We found several of their nests—in all cases but one on the middle of a horizontal branch of a fir-tree; the exception was in the extreme top of a walnut. The nests are most beautiful cups of moss, lined with fine roots, a little down and hair, and covered outwardly from top to bottom with green lichen. They are, I think, the most beautiful nests I have ever seen. The number of eggs in all full clutches was four.

36. *ORIOLOUS KUNDUO* Sykes.

This bird is evidently a migrant in Kashmir. It was common about Srinugger in April, but did not reach Gund till well on in May. Further up the river we only saw it once; this was on the 1st June, when a small flock appeared at Sonamurg; they must, however, have passed on, as we did not afterwards see any more there. The young were flying at Gandarbal by the end of June.

37. *STURNUS HUMII* Brooks.

Very common in the Valley of Kashmir, breeding in holes in trees in every village there, and fairly common in the Sind Valley, nearly as far as Gund. In June a few came to the villages further up the river, but we did not see any at Sonamurg, or even at Gangadgir. There were four or five eggs, and in one case six, in the various nests we took.

38. *TEMENUCHUS PAGODARUM* (Gm.).

We saw a single pair of this bird on the 28th June on the Kashmir side of the Jhelum, a few miles north of Kohala.

39. *ACRIDOTHERES TRISTIS* (Linn.).

Common along the Jhelum Valley as far as Baramula, and also in the Valley proper of Kashmir ; it does not, however, seem to enter the Sind Valley, though there were a pair or two at Gandarbal, its mouth.

40. *HEMICHELIDON SIBIRICA* (Gm.).

This was one of the latest migrants. We saw a pair near Gund, evidently passing through, on the 23rd May, and we found small flocks and pairs at Sonamurg on the 1st June. These increased in numbers later on, and we discovered nests half built on the 3rd. They, however, take a long time to build, and the nests we found on that date did not contain the full clutch of four until the 16th, but we also saw other nests only in process of building on this later date. With one exception, all the nests found were on the horizontal branches of large spruce firs in very open forest, and generally 30 or 40 feet from the ground. The nests were large, solid, cup-shaped structures of moss, and were placed about halfway along the branch on the upper side. The number of eggs was either three or four. The birds might be said almost to breed in colonies, as in one place we found five nests in a circle with a radius of less than fifty yards. The birds were constantly on the wing, and looked then very much like some small species of *Artamus*. The eggs are of a darkish green, mottled with microscopic dull red spots, giving the eggs a reddish hue, mainly over the larger end. We do not think this bird bred under 9000 feet.

41. *SIPHIA HYPERYTHRA* Cab.

Common at about an elevation of from 6000 to 7000 feet in the Sind Valley, but not noticed elsewhere. We took nine nests in the neighbourhood of Gund and Kulan, from the 23rd May to the 17th June ; this last was, however, no doubt a second nest of a pair previously robbed, as it was in the tree adjoining the former one. These were all in holes in the trunks or boughs at varying heights. Of these two were within 6 feet of the ground, three from 10 to 15 feet, and the others from 20 to 40 feet. They were as a rule

composed of dead leaves mixed with moss, and lined with a few feathers and hair; one, however, was composed exteriorly of dead leaves, and interiorly of decayed pieces of wood and one or two horse-hairs. The number of eggs was generally five, and they were of a faint bluish green, much paler than those of *Hemichelidon* or *Alseonax ruficaudus*; they had a series of distinct reddish spots forming a ring round the larger end, and the small end was also of a paler tint than the rest of the egg. In every case the male had a bright red chest, throat, and upper abdomen, with a broad black bar on each side of the throat. The females varied; some having no red on the breast, while others had a distinct reddish tinge.

42. CYORNIS LEUCOMELANURUS (Hodgs.).

This was a fairly common bird at from 6500 to 9000 feet in the Sind Valley, and we got nests at Gund, in the gorge above Gangadgir, and at Sonamurg, during the last week in May and first fortnight of June. In about half the cases we found the males in the plumage of the female, and in that case, except in size, they looked wonderfully like *Alseonax ruficaudus*, which was common in the neighbourhood.

The position of the nests varied: most were in crevices in trees, but not so deeply as in the case of *Siphia*, and we generally could get out the eggs without requiring an axe. The nests consisted of moss and hair and a few feathers; they were generally low down, in only one case exceeding 10 feet, and that was only 18 feet. In two instances, however, we found nests of this bird placed against the trunks of trees. In these cases, though smaller, they exactly resembled those of *Alseonax ruficaudus*. The eggs were a uniform cream-colour, the thicker portion being a shade darker in some cases.

43. CYORNIS SUPERCILIARIS (Jerd.).

This bird was rare at Sonamurg, where we only saw one pair; but at Gund they were numerous over the wooded hills, generally at an elevation of 7500 feet and upwards. We obtained only three nests there: the first was in the disused hole of a Woodpecker, 20 feet from the ground; the second

in the hole of a thin tree only 12 feet from the ground, while the last was over 25 feet, in a rotten branch of a dead tree. The nests were of moss, lined with a few fibres of wood, and the eggs were 5, 4, and 5 respectively. These were taken between the 20th and 28th May.

44. *ALSEONAX RUFICAUDUS* (Swains.).

This was much the commonest of the Robin-Flycatchers about Gund; higher up, at Sonamurg, we found it rare, only seeing one pair, the nest of which we took on the 12th June with four eggs at the junction of the lowest branch of a spruce fir with the trunk, some ten feet from the ground. At Gund we found many nests; they were large solid cups, generally built within reach or at the most fifteen feet or so from the ground on the stumps of pollarded trees, the branches of which had sprouted and were covered with leaves. In one or two cases we found nests placed against the trunks of large fir-trees. They were composed of moss and lined with hair and feathers, and bound round the outside with spiders' web. The number of eggs was either three or four; they were of a uniform pale olive-green, faintly tinged with pink at the larger end, forming a cap. The birds, though very common, were shy when breeding, and deserted several of the nests we found; they also took so long a time to build that on the 31st May we had to leave nests, which had been found in process of building a fortnight before, either unfinished or without a full complement of eggs.

45. *TERPSIPHONE PARADISI* (Linn.).

This bird was common in the Jhelum Valley at an elevation of from 4000 to 5000 feet, and about Srinugger and in the Valley of Kashmir generally; we did not notice any in the Sind Valley. The nests about Srinugger and Gandarbal contained well-grown young towards the close of June.

46. *PRATINCOLA CAPRATA* (Linn.).

We found this bird common both in April and June along the Jhelum, between Kohala and Uri. We did not see it further north or in the Valley of Kashmir proper. At the end of June most of the nests contained fresh eggs.

47. *PRATINCOLA MAURA* (Pall.).

This bird was common everywhere we went in Kashmir, but was less common south of the Pir Panjal range and north of Sonamurg. We got nests half built at Srinugger in April, and in the Sind Valley, which we left at the end of June, many pairs were laying for the second time, while lots of young birds were on the wing, and we could have taken many clutches every day between these dates had we wished to do so.

48. *HENICURUS MACULATUS* Vig.

We were surprised to see so little of this bird ; we only came across it twice on small streams in the neighbourhood of Gund : once in May and once in June.

49. *CHIMARRHORNIS LEUCOCEPHALUS* (Vig.).

Birds of this attractive species were found in numbers along the Sind River, when we marched up it the first week in May, but they almost immediately deserted the lower portions of the river, and two individuals we saw in May, one at Gund on a tributary and one at Kulan, were evidently merely late passengers. It was not till we reached the gorge below Sonamurg on the 1st June that we again came on the bird in pairs ; on that day we found three nests, two in the gorge and one on a tributary of the Sind River. The first few nests were found in a few minutes by watching the birds from the road, the first being in a large crevice in the rock overhanging the road and some fifteen feet above it ; it consisted of a huge mass of moss lined with some soft fibre from the river-bank, and contained three eggs, quite fresh. The second was on the opposite side of the river, on a grassy bank, about ten feet from the water ; it was, however, unapproachable, as the river was unfordable, while a rocky spur prevented anyone crossing the bridge a mile or two further up and coming down the bank. The third nest was fifty yards from the river in a hole in an old stump. The hole was quite the place for a Tit's nest, and was about ten feet from the ground. A boy sent up announced eggs, and not knowing their size and colour I spent a long time in the dusk watching, and,

expecting a Tit, I did not pay much attention to a pair of *Chimarrhornis* on the river-bank beside me, till one quietly flew over me, and entering, seated herself on the nest, which contained four incubated eggs. Several other nests found subsequently were all in banks or under stones near the river, and either contained four eggs or young; they are similar to those of *Rhyacornis*, but of course much larger.

50. *RHYACORNIS FULIGINOSUS* (Vig.).

Fairly common along the Jhelum in April below Baramula, and noticed along the Sind River and its larger tributaries. We found several nests containing three or four eggs; these were mostly among moss on high rocks in the neighbourhood of the river. They breed from early in May till late in June, and the bird seems to rear two broods in the season. We, however, found the nests hard to discover, much harder than those of the very nearly allied *Chimarrhornis*.

51. *CYANECULA SUECICA* (Linn.).

We noticed this bird towards the end of April about Srinugger. It was then evidently merely passing through on migration.

52. *TARSIGER CHRYSÆUS* Hodgs.

Mr. Bell saw a single specimen of what must have been this bird on the side of a hill covered with thick scrub on the 28th May above Gund. I examined all the neighbourhood next day, but saw nothing of the bird. Three eggs, however, were brought to us on that day, taken a couple of miles away on similar ground. The description given by the boy could apply to no other bird, and the eggs were pale blue, absolutely similar to one previously sent me from Native Sikhim by the late Otto Möller. The nest was placed on the ground under a rock, and was composed of moss, dead leaves, and a few stems of dried grass, and was lined with goats'-hair: a regular Robin's nest.

53. *IANTHIA RUFILATA* (Hodgs.).

We found this bird only in the neighbourhood of Sonamurg, from an elevation of about 9000 feet to the highest parts of

the wooded hills. The birds were anything but shy, and kept calling and hopping all round whenever we were in the neighbourhood of their nests. Of these we found a good number in the beginning of June, but most contained young. They were placed either among the roots of fallen trees or on slopes so steep that it was difficult to traverse them with a gun in one's hand. The eggs were three, four, or five in number; they varied in colour from pure white without markings to fairly spotted eggs, white marked with pale brown. In one nest, taken on the 10th June in a hole in the root of a fallen tree, we found the egg of a Cuckoo, apparently *Cuculus saturatus*, a bird which constantly kept in the immediate neighbourhood of the nest. In most of the pairs of *Ianthia* we saw both sexes were in the brown plumage, and it was decidedly the exception to find a male in the handsome blue plumage.

54. *COPSYCHUS SAULARIS* (Linn.).

I saw only two pairs of this bird in Kashmir: one was at Kagan, on the Sind River, on the 20th June, and the other was near Kohala on the 28th.

55. *MERULA CASTANEA* Gould.

We saw a few pairs of this bird at Gund, and also at Sonamurg. It must be a very early breeder, as we shot young flying on the 28th May. We obtained also several nests with eggs or small young during May and June: one of these was in the face of a rock on a steep hill, and the others were from three to seven feet from the ground on stunted trees; they were composed of dead leaves and grass, lined with mud, and then neatly lined with fine grass-roots. The number of eggs or young was either three or four.

56. *MERULA UNICOLOR* (Tick.).

A very common bird in the Valley of Kashmir, but not apparently coming up the Sind Valley more than a very few miles. In the Kashmir Valley itself there were pairs in every village and grove of trees. We obtained numbers of nests about Gandarbal in May, and there were fresh eggs in

others at Srinugger in the end of June. They were at various heights in large trees or on low bushes, and contained from three to five eggs.

57. *PETROPHILA CINCLORHYNCHA* (Vig.).

A fairly common bird both at Gund and at Sonamurg, where we found it at an elevation of quite 10,000 feet. It is a most beautiful songster, the males singing from sunrise. The females are shy. Our first nest was taken at Gund on the 21st May, and contained four fresh eggs; it was placed on the ground under a rock. We obtained a nest at Sonamurg in a similar situation, also with four fresh eggs, on the 8th June, and others as late as the 18th of that month. One taken on the 25th May, with five eggs, was in the top of a pollarded tree, about nine feet from the ground.

58. *PETROPHILA CYANUS* (Linn.).

Noticed sparingly on the Tukht-i-Suliman at Srinugger, both in April and June. It was evidently breeding there, but was shy, and we were not able to discover any nests.

59. *TURDUS VISCIVORUS* Linn.

Noticed occasionally at Sonamurg. It is an early breeder, as the young were strong fliers in June.

60. *CINCLUS KASHMIRIENSIS* Gould.

We saw a single specimen of the White-breasted Dipper near Gangadgir on the 4th May. We never, however, saw any others later on.

61. *CINCLUS ASIATICUS* Swains.

This Dipper was common everywhere in the Sind Valley above Kagan. We noticed on the 8th May a pair building on an island in the river below Sonamurg; the female collected great lumps of moss, and dived with them to some place under the other bank. When we returned three weeks later, the whole of that side of the island was under water and the Dippers had disappeared; but we saw full-grown young flying at Gund on the 19th May, and a pair, which was doubtless the same, building again under a small waterfall on the 26th.

62. *THARRHALEUS JERDONI* (Brooks).

We never noticed this bird at any level lower than Sonamurg. It was fairly common there among the snow-clad forests in early May, and in June was generally scattered in all the pine-woods. It is not a shy bird, hopping about on the ground or low down on the fir-trees within a few yards of the onlooker. We took only two nests: the first was on the 11th June; it was on a stunted pollard birch-tree about eight feet up, and was composed of moss, birch-bark, reed-stalks, lined with hair and a few feathers; outwardly it was completely covered with pieces of birch-bark, and as it looked exactly like the adjoining bough, it was very difficult to discover. The second nest was found on the 13th June, and was placed on a horizontal branch of a fir in a thick clump about twelve feet from the ground. There were four blue eggs on each occasion in the nest.

63. *PYCNORHAMPHUS ICTEROIDES* (Vig.).

Noticed daily all the time we were in the Sind Valley at Gund, Gangadgir, and Sonamurg, where it was found in pairs and small flocks scattered through the forests. In June I saw a female with something in her mouth, but could not see whither she flew. I rather doubt this bird having regularly commenced to build by the 16th June when we left Sonamurg.

64. *PYRRHULA AURANTIACA* Gould.

Noticed occasionally at Gund in May, and at Sonamurg in June. At the latter place it became commoner towards the middle of the month, when small flocks appeared. Previously to that we had only seen pairs there. On the 14th June my companion saw a pair building at Sonamurg; the nest was on a horizontal branch of a small fir, about three feet from the ground, and was composed of thin twigs and lined with hair; it was in fairly thick jungle about 9000 feet. We intended to arrange to have the eggs taken, but were unfortunately unable to rediscover the nest.

65. *PROPASSER RHODOCHROUS* (Vig.).

This lovely Finch was in pairs at Gund on the 11th May.

It was, however, merely migrating, as after the next day or two we never met with it again.

66. *CARPODACUS ERYTHRINUS* (Pall.).

This bird we also saw in pairs at Gund on the 11th May, and occasionally till the end of the month. There were a few pairs at Sonamurg in June undoubtedly intending to breed; and we found two old nests in low bushes on the edge of the thick forest, which we believe to have belonged to this bird. They were of the previous year, and one contained fragments of blue eggs with dark spots. Although the birds we saw in the middle of June were making love, we saw no signs of their having begun to build.

67. *CARDUELIS CANICEPS* Vig.

This lovely little bird was fairly common on the hills round Srinugger in April, and on the 29th there we found on the Tukht-i-Suliman a nest half-built on the horizontal branch of a *Pinus excelsa* at about ten feet from the ground. This nest we had taken on the 8th May; it was a lovely, very solid cup of moss, with a few roots interwoven on the outside, and contained when taken three pale blue eggs, slightly spotted on the larger end with dull red and lilac. We saw a small flock of Goldfinches at Kagan on the 3rd May, but did not see any more till the 16th June, when a small flock appeared at Sonamurg. Coming down the Sind River on the 18th, we saw another small flock at Kulan. As we are sure that there were none there a fortnight earlier, there must be a particular migration, and possibly the birds bred at that high elevation later. We saw a young brood flying at Srinugger on the 23rd June, and a pair near Uri in the Jhelum Valley on the 27th June.

68. *CALACANTHIS BURTONI* (Gould).

Fairly common in flocks in May in the higher forests round Gund, and in June about Sonamurg in pairs. One shot there in the second week of June would not apparently have laid for three weeks. We saw no signs of nidification.

69. *HYPACANTHIS SPINOIDES* (Vig.).

We saw only two pairs of this bird, one near Kulan on

the 16th June, and the other on the 20th near Kagan. They were both apparently migrating up the river.

70. *PASSER DOMESTICUS* (Linn.).

This bird absolutely swarmed along the Jhelum in the Valley of Kashmir, where it was building in the end of April in holes in the banks of the river. When we went up the Sind River in May, we did not see any above Kagan, but subsequently a flock came and settled in a village above Gund. It was common in June everywhere along the Jhelum as far as Kohala.

71. *PASSER CINNAMOMEUS* (Gould).

Noticed from Kagan as far as Gangadgir very commonly, and there were a few pairs at Sonamurg. Its nests were, so far as we could judge, always in small holes in trees at any height up to twenty feet. We took a good many clutches of eggs at the end of May.

72. *FRINGILLAUDA SORDIDA* Stol.

On the 5th June an immense flock, consisting of some hundreds of this species, passed through Sonamurg in the early morning of a very wet and misty day. Wanting specimens, I fired at the thinnest portion of the flock, and killed some twenty birds.

73. *EMBERIZA FUCATA* Pall.

So far as we could judge, this is a scarce species in Kashmir. We saw a few males along the Sind River between Kagan and Kulan. The males have a pretty little song, which they constantly indulged in, seated on the top of a bush. We never saw a female, and, though the birds were certainly breeding, we never saw the sign of a nest. We saw this species only between 6000 and 6500 feet, and only along the river.

74. *EMBERIZA STEWARTI* Blyth.

A very common bird on all the stony hills round Srinugger, and a few miles up the Sind River from Gandarbal. It was also common along the Jhelum between Baramula and Kohala. We found many nests being built about Srinugger

and Gandarbal at the end of April and beginning of May; they were on the ground under bushes. The only clutch of eggs we got was one of three at Srinugger in the beginning of May.

75. *EMBERIZA STRACHEYI* Moore.

Very common above Kagan on the Sind River up to Sonamurg, and as far above it as we went. We found numbers of its nests built on the ground under bushes or rocks, and in the open on all the hills. It was not uncommon in the thicker forests, and one nest we got there was in the low bough of a fir-tree, about nine feet from the ground. The eggs were generally three in number, and in a few cases four.

76. *MELOPHUS MELANICTERUS* (Gm.).

Common along the Jhelum Valley in April and again in June from Kohala to Baramula, but not noticed by us in the valleys of Kashmir or on the Sind River.

77. *CHELIDON KASHMIRIENSIS* (Gould).

A number of White-rumped Martins were noticed by us at Gund on the 24th May, and at Sonamurg on the 6th June and subsequent days. They kept flying very high and we could not get a specimen. They were no doubt breeding on some of the high cliffs on the sides of the hills, but we could not obtain any clue to their nesting-places.

78. *HIRUNDO RUSTICA* Linn.

A very abundant bird in the Valley of Kashmir, but not noticed in the Sind Valley. In the end of June a few were seen between Kohala and Baramula. At the end of April they were breeding in great numbers in houses, temples, and under bridges. The nests were similar to those found in Europe, but the eggs seemed more feebly coloured as a rule.

79. *HIRUNDO NEPALENSIS* Hodgs.

Common between Kohala and Baramula both in April and June, and breeding on the cliffs above the road and in culverts under it. We never noticed it above Baramula in the Kashmir Valley or further north.

80. MOTACILLA HODGSONI G. R. Gray.

This Wagtail was common at Srinugger in April; during May and June it was very abundant in the Sind Valley, breeding under large stones on islands in the Sind River. Its nests were large masses of brown sheep's-wool, lined with hair, and the number of eggs was either four or five. Great numbers of the nests of this and the next bird were destroyed by floods, as the river rises many feet after each hot day, owing to the melting of the snow—a fact the bird does not seem to have discovered; and for every nest we found with eggs, at least the wreck of another was discovered. South of Baramula along the Jhelum we could not be sure we saw this bird, though a pair of young seen near Domel looked like it.

81. MOTACILLA MELANOPE Pall.

This bird we first noticed near Kagan on the Sind River, and it was common from that place to beyond Souamurg. We found many nests in May and June; most of these were in situations similar to those chosen by *M. hodgsoni*, but two or three were in banks of the river, a foot or two above the water. The nests were, however, smaller, and the wool composing them was in all cases white; there were always four or five eggs.

82. MOTACILLA CITREOLA Pall.

This bird was very common in the marshes round Srinugger at the end of April, but we never saw it in the Sind Valley, and it had totally disappeared by the time of our return at the end of June. Whether it had bred and departed in the meantime we could not tell, but the boatmen declared that a Yellow Wagtail, probably *M. citreoloides* Hodgs., habitually bred among the willows in the marshes. All the specimens of Yellow Wagtail obtained were, however, *M. citreola*, and not *M. citreoloides*.

83. ANTHUS SIMILIS (Jerd.).

Fairly common on the low hills round Srinugger and Gandarbal both in April and June. In the latter month it

had young flying, and we found a new nest which, we believe, belonged to the bird.

84. *ANTHUS ROSACEUS* Hodgs.

There were large flocks of Pipits travelling up the Sind Valley in the beginning of May; these we believe to have been all or mainly of this species. We saw also a single pair of this bird at Gund on May 17th, one of which I shot, but they would not have bred for some time.

85. *ALAUDA ARVENSIS* Linn.

The larger form of Lark was very common at Sonamurg, but we did not come upon it anywhere else. In June we took numbers of nests among the longish grass on the Sonamurg plateau, each containing three eggs.

86. *ALAUDA GULGULA* Frankl.

We saw a few pairs of the smaller Skylark in the end of June along the Jhelum between Shadipur and Baramula.

87. *DENDROCOPUS HIMALAYENSIS* (Jard. & Selby).

This bird was common along the Sind Valley from about the level of Gund to Sonamurg. We found many nests in May and June, but all of them contained young. They were placed at considerable heights, 25 feet or more, from the ground, and were in both dead and growing trees.

88. *DENDROCOPUS AURICEPS* (Vig.).

We saw and shot a single specimen of this bird near Sopur, on the Jhelum, in the Valley of Kashmir, on the 23rd April. We never saw the bird again.

89. *LYNX TORQUILLA* Linn.

A common bird everywhere in Kashmir beyond the Pir Punjal range. It haunts the outskirts of the forests and the gardens round Srinugger and the various villages. We found several nests, but mostly high up in dead trees in dangerous or inaccessible positions, and took only one nest with eggs. This was in the hole of a Woodpecker's former nest in the stem of a walnut-tree, about 7 feet from the ground, and contained on the 24th May seven fresh eggs.

90. *CORACIAS GARRULA* Linn.

The Roller is one of the later migrants, and we saw none in the Valley of Kashmir in April, and only a single specimen at Gund in May. This we shot on the 17th. On our return there on the 18th June we found the bird sparingly distributed, but becoming more common as we descended the Sind River to Gandarbal. We took two nests in holes of trees on the 18th June, each containing four eggs; one clutch was quite fresh, and the other just being hatched. On the 26th June we found the bird breeding in numbers in holes in the bank of the Jhelum near Baramula, and eight nests found on that date contained incubated eggs or young.

91. *MEROPS APIASTER* Linn.

This bird was common at Srinugger in the end of April, but seemed to be restricted to the valley, as we did not see it above Gandarbal, on the Sind. The only nests we saw were singly along the hill-side at Gandarbal.

92. *CERYLE VARIA* Strickl.

Common along the Jhelum between Baramula and Srinugger, not extending up the Sind River more than a mile or so above Gandarbal. It was building its nest at the end of April.

93. *ALCEDO ISPIDA* Linn.

Very common about Srinugger and along the same parts of the river on which we found *Ceryle varia*. We obtained many nests about Gandarbal in May and June.

94. *UPUPA EPOPS* Linn.

We found the Hoopoe very common in the Valley of Kashmir when we arrived in April. It was then in pairs and continued common everywhere we went, while we even saw a few at about 10,000 feet on the hills above Sonamurg. Its nests were in holes in trees at all heights, and we found one nest among a heap of stones on the ground. The birds breed twice, as we came across small young at Gangadgir (7000 feet) as early as May 4th, and incomplete clutches of fresh eggs were taken as late as June 18th, while none of

the numerous pairs we watched seemed to be without a nest. The number of eggs or young was generally seven.

95. *CYPSELUS APUS* (Linn.).

The Common Swift, or the form separated as *C. pekinensis* Swinh., was very abundant on the high cliffs in the Sind Valley from the mouth of the Wangan Valley at Kagan to above Sonamurg. We shot one as early as the 2nd May. They generally flew, however, round the top of the cliffs out of shot.

96. *CUCULUS CANORUS* Linn.

We heard this Cuckoo daily during all the time we were in Kashmir, from the tops of the highest hills down to Kohala (2000 feet). Considering its abundance, we were rather surprised to find so few of its eggs; in fact, we only obtained three: one, normally coloured, on May 31st, in a nest of *Pratincola maura*; another, of a uniform pale blue, on June 16th, in the nest of *Hodgsonius phænicuroides*; and a third, normally coloured, on June 27th, in a nest of *Pratincola bicolor*. This last was near Garhi, on the Jhelum River.

97. *CUCULUS SATURATUS* Hodgs.

We only met with this Cuckoo at Sonamurg, and there it was not common. Its habit of constantly uttering its cry, which is like that of the Hoopoe twice repeated, revealed its presence in one or two places. We obtained one egg, which we consider to have belonged to this bird, as one was constantly calling from a tree near, and another rose from the ground somewhere near the nest when we discovered it. The egg, perfectly fresh, was placed in the nest of *Ianthia rufilata*, which also contained four slightly incubated eggs of that bird. It was taken on the 10th June, and was a broad oval, hardly differing in the size of the ends, and of a uniform brownish pink, with a few slightly darker spots.

98. *CUCULUS POLIOCEPHALUS* Lath.

This very noisy bird was fairly common from Kagan as far as Sonamurg, in the Sind Valley. It is, however, a late arrival, as we did not hear it till the first week of June.

It is, I think, the most vociferous bird in the breeding-season I ever heard, calling as much by night as by day. On the 4th June we discovered a single white egg, faintly spotted, in a Warbler's nest, and wondered what Warbler could lay an egg of this description. On the 7th we again visited the nest and discovered that the Crows had robbed it, but the broken remains of the egg, as well as those of eggs of *Phylloscopus humii*, were in the nest. On the same day, within a hundred yards, we found a nest of *Acanthopneuste occipitalis* in a hole in a tree-stump, which also contained a similar egg. The egg is about twice the size of that of *A. occipitalis*; it is very elongated and pure white, with a few small brown spots. This Cuckoo is very shy, and it was only after hours of work, stalking various individuals, that we obtained a specimen, though through a glass it was easy to watch the bird and identify it.

99. *CACOMANTIS PASSERINUS* (Vahl.).

100. *PENTHOCERYX SONNERATI* (Lath.).

These, our old familiar Kanara friends, we both saw and heard near Garhi, in the Jhelum Valley, on the 27th and 28th June. They were apparently common there, but we never met with them further north.

101. *PALÆORNIS SCHISTICEPS* Hodgs.

This beautiful Parrot was common on the way from Kohala to Baramula along the Jhelum, both in April when we were travelling to Kashmir, and in June when we were returning. We never saw it beyond about seven miles on this side of Baramula.

102. *ASIO OTUS* (Linn.).

I saw a specimen of this Owl at Sonamurg in May, but did not manage to secure it. I also heard what I believe to have been its note in June at the same place.

103. *SYRNIUM NIVICOLA* (Hodgs.).

This Owl was not uncommon at Sonamurg and on the hill above Gund. We were not able to discover any nests, though we saw one of these birds furiously attacking a Crow.

104. *BUBO BENGALENSIS* (Frankl.).

I do not think this species was at all common in Kashmir. I saw a pair on the bare hills near Gandarbal; also some feathers at the Tukht-i-Suliman, near Srinugger.

105. *PANDION HALIAËTUS* (Linn.).

On the 28th April I observed a single Osprey on the Dal Lake at Srinugger.

106. *GYPS HIMALAYENSIS* Hume.

Noticed occasionally, sometimes in considerable numbers, in the Sind Valley, and also in the Jhelum Valley between Baramula and Kohala. We did not see any of their breeding-places.

107. *NEOPHRON PERCNOPTERUS* (Linn.).

A *Neophron*, presumably this species, was found abundantly along the Jhelum Valley as far north as Baramula. We saw also a pair on the hills close to Srinugger, and another pair at Gund in the Sind Valley. We did not secure a specimen, so cannot be sure to which form they belonged.

108. *GYFAËTUS BARBATUS* (Linn.).

The Bearded Vulture was not uncommon in the upper portion of the Sind Valley, from about Gund to beyond Sonamurg.

109. *HIERAËTUS PENNATUS* (Gmel.).

We noticed this bird once or twice at Kagan, and saw specimens both in the brown- and white-breasted plumage. We saw also a pair towards the end of June on the Tukht-i-Suliman, near Srinugger.

110. *HALIAËTUS LEUCORYPHUS* (Pall.).

This was common everywhere in the Valley of Kashmir along the Jhelum, the mouth of the Sind River, and on the banks of the lake. It did not appear to follow the Sind River any distance into the hills. A pair bred yearly in an immense tree near Gandarbal.

111. *MILVUS MELANOTIS* Temm. & Schleg.

Kites were very common along the Jhelum in the Valley of Kashmir, and were breeding when we arrived in April.

On the 24th of that month we took two nests in low trees along the Jhelum and shot one bird, which proved to be a male of the larger species. We once or twice saw a single Kite in the Sind Valley; they, however, looked small, and did not seem to possess the huge white wing-patch so apparent on the larger Valley Kite: they may have been *M. govinda*.

112. *CIRCUS ÆRUGINOSUS* (Linn.).

This was the only Harrier we saw in Kashmir; we found a few specimens in the neighbourhood of the marshes in the valley in April, but did not see it elsewhere or later.

113. *BUTEO FEROX* (Gm.).

A Buzzard, which, from a close examination through a glass, we identified as of this species, was seen occasionally in the hills both at Gund and Sonamurg. It was evidently breeding, and continually uttered its long wailing cry. We unluckily did not shoot a specimen, as we always expected to find a nest.

114. *ACCIPITER NISUS* (Linn.).

We noticed this bird occasionally in the high hills of the Sind Valley and shot a very dark male at Sonamurg on the 7th June.

115. *FALCO PEREGRINUS* Tunst.

We noticed this bird only twice: once near the Woolar Lake in April, and again on the evening of the 6th May at Sonamurg.

116. *FALCO SUBBUTEO* Linn.

We saw a Hobby, probably of this species, on the 20th and 21st June at Kagan, near the foot of the Sind Valley. We, however, unfortunately had not a gun in our hands when it flew close over our heads.

117. *TINNUNCULUS ALAUDARIUS* (Gm.).

The Kestrel was common in the Sind Valley, and was noticed also on the Tukht-i-Suliman. It was breeding on several of the inaccessible cliffs in the Sind Valley.

118. *ALSOCOMUS HODGSONI* (Vig.).

Noticed once or twice in the hill-forests between Gund and Gangadgir in May and June. We did not succeed in finding a nest.

119. *COLUMBA INTERMEDIA* Strickl.

We saw a few specimens of this Pigeon in the Jhelum Valley between Kohala and Garhi. We did not notice any in the valley itself or further north.

120. *COLUMBA LEUCONOTA* Vig.

This beautiful Pigeon was very common in the beginning of May on the Sonamurg plateau, and occasionally among the cultivation along the Sind River as far down as Kulan. It was then in small flocks. During June we saw it occasionally at Sonamurg, singly or in very small flocks. It seemed generally to fly to and from a ridge of rocks not far from the nullah joining the Sind River, close to the village of Sonamurg. We intended to visit these rocks, but never were able to find time.

121. *TURTUR FERRAGO* (Eversm.).

A very common bird along the whole Sind Valley. It seems a late breeder, as, though we observed one nest with young early in May, we found no others till the end of June, when we discovered several with fresh eggs. They were in various positions in low thick undergrowth, on the branches of fir-trees, and on garden-trees near villages.

122. *TURTUR DOURACA* Hodgs.

In the early part of May we noticed some of these Doves as far up the Sind Valley as Sonamurg, and saw a single bird there on the 15th June; the species was, however, very common about Srinugger, and along the Jhelum south of Baramula, in June, while we took eggs at Srinugger in that month.

123. *LOPHOPHORUS IMPEYANUS* (Lath.).

A few of this species were found on the south side of the Sind River, at Gangadgir.

124. *PUCRASIA MACROLOPHA* (Less.).

The Koklass was not uncommon in the forest above Gund ; we saw it several times, and heard it crowing almost daily there in May.

125. *CACCABIS CHUKAR* (J. E. Gray).

This bird was very common on the hills round Srinugger, and about the mouth of the Sind Valley at Gandarbal.

126. *COTURNIX COMMUNIS* Bonn.

We saw a good many Quails while walking along the banks of the Jhelum between Sopur and Srinugger in April. We did not see or hear them later, so think that they merely passed through on migration.

127. *ÆGIALITIS DUBIA* (Scop.).

This bird was common about Gandarbal on the flat banks of the Sind River there. It had small young, unable to fly, at the end of June.

128. *LOBIVANELLUS INDICUS* (Bodd.).

This bird we did not notice in May, but it was common along the Sind River from its mouth as far as Kagan.

129. *SCOLOPAX RUSTICULA* (Linn.).

We found the Woodcock by no means uncommon in the wooded hills from Kagan to Gangadgir, though we saw none further up at Sonamurg. On the 24th and 25th May we obtained two clutches of its eggs, consisting of four slightly incubated and three fresh eggs, and on the 28th May I found a pair with small young ones, and distinctly saw one of the old birds carrying a young one between its feet or legs. It flew only some 50 yards, but though I followed at once, I not only failed to find the young bird, but could not even put up the old one again, and on returning could not find a young one that I had previously noticed on the ground.

130. *GALLINAGO CÆLESTIS* (Frenzel).

We saw three Snipe near the Woolar Lake in April on our way to Srinugger.

131. *RHYNCHÆA BENGALENSIS* (Linn.).

Noticed on two or three occasions in the marshes about Gandarbal in June. There we took two nests in the end of that month with one and four fresh eggs respectively.

132. *TOTANUS OCHROPUS* (Linn.).

On the 5th May we saw three Green Sandpipers at Sonamurg, no doubt on migration.

133. *TRINGOIDES HYPOLEUCUS* (Linn.).

We saw the Common Sandpiper occasionally along the Jhelum in April, and all along the Sind River in May and June. It was breeding on the banks of the Sind River, and we obtained two nests, each with four eggs, on the 8th and 20th June, at Sonamurg and Gund respectively.

134. *TOTANUS CANESCENS* (Gm.).

We noticed a good many Greenshanks on the Woolar Lake in April, and our boatmen stalked a flock and shot several. In India they are generally singly or in pairs.

135. *HIMANTOPUS CANDIDUS* (Bonn.).

We saw a small flock of Stilts on the banks of the Jhelum in the Kashmir Valley in April.

136. *HYDROPHASIANUS CHIRURGUS* (Scop.).

This bird breeds in enormous numbers on the Woolar and other lakes in Kashmir. We obtained numbers of eggs on the 25th and 26th June on the floating weeds in the marshes adjoining the Woolar Lake.

137. *FULICA ATRA* Linn.

Very common on the Woolar Lake and adjacent marshes, both in April and June.

138. *GALLINULA CHLOROPUS* (Linn.).

Very common in all the Kashmir marshes, breeding in May and June. The largest number of eggs we found in any nest was nine.

139. *PORZANA FUSCA* (Linn.).

Common in the marshes about Gandarbal and in the rice-fields along the Sind River as far as Gund. We took three

of its nests, with five, four, and a single egg, at that place on the 21st and 22nd June.

140. *ARDEA CINEREA* Linn.

Common in the valley, where it is strictly preserved. We saw some of its empty nests on willows in one of the lakes.

141. *ARDETTA MINUTA* (Linn.).

Very common on the Dal Lake and in the marshes round Gandarbal at the end of June. It was then breeding, and in a couple of mornings we took some 20 of its nests. They were in patches of rushes and other weeds, and were very slight structures; the greatest number of eggs in a nest was six. The female is very tame, and several times allowed herself to be caught on her nest.

142. *NYCTICORAX GRISEUS* (Linn.).

We saw a pair of Night-Herons at Srinugger on the 27th April.

143. *SPATULA CLYPEATA* (Linn.).

We saw many Shovellers on the Woolar Lake in April, and again on the 21st June we saw three on a marsh at Gandarbal. On the 27th June our boatmen shot one on the Woolar Lake, but it was much out of condition, and may have been a wounded bird. I think, however, that finding three together so late in June makes it probable that some must remain and breed in Kashmir.

144. *ANAS BOSCAS* Linn.

Noticed on the Woolar Lake in April and again in June. We found what was probably a nest of this bird at Gandarbal. It contained a rotten egg and the remains of others, but had been submerged by a rise in the water.

145. *CHAULELASMUS STREPERUS* (Linn.).

146. *QUERQUEDULA CRECCA* (Linn.).

147. *QUERQUEDULA CIRCIA* (Linn.).

We saw small flocks of these three Ducks along the Jhelum and on the Woolar Lake in April.

148. *NYROCA FERRUGINEA* (Gm.).

This is the commonest Duck in Kashmir. We saw numbers in April, and they seemed equally common in June. We took one nest at Gandarbal, in a marsh. It was a large structure, composed of dried reeds and down, and contained six partially-incubated eggs. Other eggs were brought to us, some as early as May.

149. *TACHYBAPTES FLUVIATILIS* (Tunst.).

The Little Grebe breeds abundantly on all the marshes and lakes in the Kashmir Valley. We obtained many nests on the 25th June; the largest number of eggs in any nest was seven.

150. *LARUS RIDIBUNDUS* Linn.

We saw a number of Gulls on the Dal Lake on the 28th April. They were too wild for us to obtain a specimen, and as they were not in breeding-plumage we cannot be certain, but they seemed to be of this species.

151. *HYDROCHELIDON HYBRIDA* (Pall.).

We found this Tern breeding in large numbers on most of the marshes. We obtained many eggs on the 25th June, mostly fresh, but some incubated; they were laid on floating weeds.

II.—*A List of the Birds of the Island of Rotumah.*

By H. GADOW, M.A., Ph.D., F.R.S.

MR. J. STANLEY GARDINER, B.A., Caius College, Cambridge, a member of the Coral-boring expedition to Funafuti, went afterwards in H.M.S. 'Penguin' to Rotumah, a small island 300 miles north of the Fiji group, where he spent three months, from September to December 1896. He collected there examples of the following birds, which, preserved in spirits, he has presented to the Cambridge Museum of Zoology. The field-notes have been copied from Mr. Gardiner's diary.

I am indebted to Dr. R. B. Sharpe for naming the specimens of *Aplonis tabuensis* and *Ptilopus porphyraceus*, as